

REMARKS

Claims 21-40 are pending in the application.

Claims 21-40 have been rejected.

I. **REJECTION UNDER 35 U.S.C. § 103**

Claims 21-40 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Dumas (US 5,519,773) in view of Anisimov (US 6,449,358). The rejection is respectfully traversed.

In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. MPEP § 2142; *In re Fritch*, 972 F.2d 1260, 1262, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992). The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention is always upon the Patent Office. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984). Only when a *prima facie* case of obviousness is established does the burden shift to the applicant to produce evidence of nonobviousness. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of a patent. *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 U.S.P.Q. 870, 873 (Fed. Cir. 1985).

A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. *In re Bell*, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. MPEP § 2142.

The effective filing date of the present application is December 13, 1999. The effective filing date of US Patent No. 6,449,358 (the Anisimov reference) is April 14, 2000. Based on its effective date, the Anisimov reference is not prior art.¹ The Office Action has failed to establish a *prima facie* case of obviousness.

Applicant respectfully disagrees with the Office Action's interpretation of the Dumas reference. As noted previously, Dumas teaches the following:

¹ Though the Anisimov reference appears to claim priority to Application Serial Nos. 09/209,306 (filed December 11, 1998) and 09/024,825 (filed February 17, 1998), these priority claims are continuation-in-part (CIP) claims. As a result, new matter appears to have been added to the Application Ser. No. 09/550,006 upon which the Anisimov reference is based. The Office Action has not established that the subject matter in the Anisimov reference, upon which the current rejection is based, is entitled to a filing date earlier than April 14, 2000.

FIG. 7 shows, in pictorial form, an embodiment of the present invention wherein an ACD system enables agents to handle inbound calls, outbound calls, and callback messages. As shown in FIG. 7, 100 represents a group of inbound and outbound ACD agents which utilize conventional ACD terminals, which ACD terminals utilize conventional telecommunication interconnections, illustrated as connections 110, to PBX 120. As is well known to those of ordinary skill in the art, the ACD terminals may be interfaced to computer systems which contain data bases having information which are displayed at the terminals for use in communicating with inbound callers and with outbound called parties. Further, it is well known to those of ordinary skill in the art that such computer systems obtain information pertaining to the callers from PBX 120 so as to be able to coordinate the call and the presentation of information relating to the call to the ACD agents.

As shown in FIG. 7, PBX call processing module 130 is conventional and is well known to those of ordinary skill in the art and performs functions such as receiving a telephone call from an inbound caller, placing an inbound telephone call in a queue, connecting an inbound caller or a caller in a queue to an ACD agent, placing an outbound call, and so forth. What is considered new, is the portion of PBX 120 denoted as callback queue 140, inbound call queue 150, outbound call queue 160, list 170 of available ACD agents, priority multiplexor 180, and the manner in which priority multiplexor 180 operates to provide a method to enable inbound and outbound call functions to be performed by one ACD agent. As will be described below, the functions performed in accordance with the present invention are carried out in software which is executed by a processor in PBX 120. This is the preferred embodiment since modern PBXs are comprised of processors which are, in essence, computers which control the operation of the PBX.

Priority multiplexor 180 utilizes an inventive ACS algorithm to define a new parameter, k , which is used as follows. If more than k ACD agents are free, and the inbound call queue is empty, then an outbound call is assigned to a free ACD agent. As a special case, when $k=0$ and no agents are idle, whenever an agent becomes idle, that agent either is given an inbound call out of the inbound call queue (if possible) or is assigned to an outbound call.

FIG. 1 shows, in graphical form, a scenario that helps to illustrate the manner in which the inventive ACS algorithm operates. As shown in FIG. 1, in time frame 200, an ACD agent is free and waiting for an inbound call, the remaining ACD agents are busy dealing with calls. An inbound call arrives at time 210 and the call is assigned to the free agent. Agents finish dealing with calls over time frame 220 until k agents are free. Then, at time frame 230, a call is completed and more than k agents are free. At this time, in accordance with the inventive ACS algorithm, a free agent is assigned to an outbound call. Later, in time frame 240, there are k free agents

waiting for an inbound call and the remaining agents are busy dealing with calls.
Finally, at time frame 250, an inbound call arrives and it is assigned to a free agent.

Col. 3, lines 10-67.

Dumas describes a system in which a group or pool of agents handle both inbound and outbound calls - and none are assigned to one state or the other (e.g., inbound, outbound). Dumas, Abstract. The calls, either inbound or outbound, are individually assigned to one of the agents within the entire group. Dumas, Abstract, Col. 3, lines 48-50. More specifically, Dumas describes that when a number of idle agents in the overall group exceeds k , then an outbound call is assigned to an idle agent (any idle agent). Col. 3, lines 48-50. Thus, all agents may handle either inbound or outbound calls, with inbound calls given to idle agents (any idle agent) but with outbound calls given to idle agents (any idle agent) only when the number of idle agents exceeds the number k . In other words, Dumas discloses that when the number of idle agents exceeds the number k , then outbound calls are assigned to one (any one) of the idle agents until the number of idle agents is reduced to k . Below k , it appears that no outbound calls are given to the agents for handling.

In contrast, and in general terms, the Applicant's invention assigns agents, within an overall pool of agents, to either a preferred state (e.g., for handling inbound calls) or another state (e.g., for handling outbound calls) based on a sampled call rate. Applicant determines (1) a number of agents that should be assigned to a preferred state (e.g., inbound) based on an expected call rate, (2) a number of agents that actually should be assigned to the preferred state based on a sampled call rate, and (3) a number of agents that should be assigned to the other state (e.g., outbound), i.e., the difference between (1) and (2). After a period of time, the call rate is sampled (at a second time),

and depending on this call rate, the number of agents assigned to the preferred state and other state are adjusted if necessary.

Applicant has further reviewed the cited portions of the Anisimov reference. As noted above, Applicant has challenged the priority date of the subject matter of the Anisimov reference upon which the rejection is based. In addition, this reference merely and generally refers to “a balance between input and output call flow of the system designed. The input flow of the system includes outbound calls and inbound call flows. That is, agents are answering both normal inbound calls and calls generated through outbound dialing (only outbound shown).” Col. 14, line 65 through Col. 15, line 3. Further, the Anisimov refers to “estimates” of an inbound-call rate, agent utilization rate and probability of successful connection. Col. 15, lines 6-7. These cited portions fail to disclose, teach, or suggest determining any numbers of agents for assignment to a state (inbound or outbound), assigning agents to the inbound or outbound state, or using expected call rates and sampled (first and second) call rates to change the number of agents assigned to the inbound or outbound state. Moreover, there is no teaching or suggestion to combine Anisimov with Dumas.

Accordingly, the Applicant respectfully requests withdrawal of the § 103 rejection of Claims 21-40.

II. CONCLUSION

As a result of the foregoing, the Applicant asserts that the remaining Claims in the Application are in condition for allowance, and respectfully requests an early allowance of such Claims.

If any issues arise, or if the Examiner has any suggestions for expediting allowance of this Application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at *rmccutcheon@munckbutrus.com*.

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Munck Butrus Deposit Account No. 50-0208.

Respectfully submitted,

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